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CLASSIFICATION S-E-C-R-E-T SECRET
SECURITY INFORMATION
CENTRAL INTELLIGENCE AGENCY
INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT
CD NO.

COUNTRY USSR

SUBJECT Economic - Technological, computing, polygraphic machines

DATE OF INFORMATION 1951

HOW PUBLISHED Daily newspapers

DATE DIST. 11 Mar 1952

WHERE PUBLISHED USSR

NO. OF PAGES 4

DATE PUBLISHED 7 Jun - 29 Sep 1951

LANGUAGE Russian

SUPPLEMENT TO REPORT NO.

THIS IS UNEVALUATED INFORMATION

SOURCE Newspapers as indicated.

URGE WIDE ADOPTION OF MODERN CALCULATING TECHNIQUES; PRODUCE NEW POLYGRAPHIC MACHINERY

SCORE BACKWARD CALCULATING METHODS -- Moscow, Izvestiya, 28 Aug 51

Many designers in the USSR are still using outdated calculating devices such as a slide rules and arithmometers. These old methods consume weeks and even months in making calculations. Under present conditions, such loss of valuable time and energy cannot be considered normal. Designers' calculating work can, for example, be carried out successfully with the use of computing and computing-analyzing machines, and electronic and hydraulic integrators.

In one branch of industry, work was conducted on improving the design of a very important part of a new machine. The calculations were complicated and lengthy. Designers had to spend 2 years on the creation of 30-40 variations in calculations. But when they used the modern calculating devices, about 2,000 variations in calculations were created in the course of several weeks. The study of these variations permitted a decrease of approximately one half in the safety factor of the part, its designing was facilitated, its profile was simplified, and the need for expensive materials was reduced considerably.

Electronic integraters occupy a very special place in the field of calculating technique. They are universal physical models of the phenomena that must be studied. An engineer, using an electronic integrater, can conduct experiments similar to those he might conduct on mechanisms and designs.

Many complex problems are being solved with the electronic integrater. These include complex heat problems, calculation of the distortion and bending of mechanical structures; problems in hydraulics; and the influence of regulators with various parameters and of the object regulated, on the speed and character of transitional processes.

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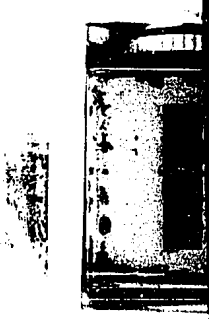

Designers have frequently been asked if the majority of designers, planners, technologists, and economists realize the enormous possibilities of calculating devices. The reply has been that many are familiar with only the arithmometer, or, at best, with a computing machine.

Modern calculating devices are effective not only in engineering and technical calculations; they can also successfully mechanize the calculation of norms in material consumption, calculations connected with production planning, tool economy, production cost, rejects, etc. Ordinarily, engineers and technicians spend approximately one third of their time in performing these tasks.

In practice, the adoption of computing machines has shown that all calculations, with given parameters, can be made successfully by unskilled workers and operators; they can also be made more rapidly, accurately, and cheaply.

The extensive introduction in industry of mechanized calculation naturally will increase the demand for modern computing machines. At present, such a demand could not be satisfied. There are several specialized enterprises in the country producing exceptional computing and computing-analyzing machines. However, the possibilities are not exhausted by these enterprises. An extensively productive cooperative of enterprises of various machine-building ministries should be organized to produce calculating devices. These can include the Ministries of Communications Equipment Industry, Electrical Industry, Local Industry, and others. -- Ye. Obodan, engineer, Leningrad.

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PRODUCE NEW COMPUTING MACHINES -- Moscow, Izvestiya, 30 Aug 51

The Computing-Analyzing Machine Plant is one of the youngest enterprises in Ryazan'. The basic framework of its building is not yet complete, but its output of finished products is being accomplished at full speed. In addition to mass producing the SDU-110 computing machine, the experimental shop of the plant is beginning to put out the new and improved, highly productive SDU-138 machine. Plant personnel have pledged to produce not less than 1,000 such machines by the end of 1951.

MUST RENEW PRODUCTION OF STENOGRAPHIC MACHINES -- Moscow, Trud, 21 Sep 51

Stenographic machines came into use in the USSR in 1947, when the Ryazan' Computing-Analyzing Machine Plant was set up for the production of domestic stenographic machines.

In 3 years, Glavpoligrafmash (Main Administration for the Production of Polygraphic, and Computing-Analyzing Equipment) of the Ministry of Machine and Instrument Building produced several hundred stenographic machines. Their production has now been curtailed because of the shortage of necessary textbooks.

Now, the Sovetskaya Nauka Publishing House is putting out a new textbook based on the many years' experience in teaching stenography in the Higher Central Stenography Courses.

In this connection, Glavpoligrafmash must renew the production of stenographic machines.

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BEGIN CONSTRUCTION OF LARGE-SCALE POLYGRAPHIC COMBINE -- Moscow, Komsomol'skaya Pravda, 8 Aug 51

The construction of a polygraphic combine for multicolor printing has been started in Kalinin. This will be one of the largest polygraphic enterprises in the country. Its many shops will be equipped with machines of new design. Periodicals, albums, maps, and photographs in color will be printed here.

Construction is taking place at a rapid rate. Over 62 million rubles have been allotted for this project.

PUT OUT NEW PRINTING MACHINES -- Frunze, Sovetskaya Kirgiziya, 29 Sep 51

Enterprises of Glavpoligrafmash have mastered series production of new equipment for printing houses.

A powerful ten-roller newspaper printing machine has been successfully tested. This aggregate, consisting of several dozen machines, including typesetting and stereotype machines and a conveyer, weighs more than 650 tons. It puts out one million newspapers in one hour.

The Shcherbakov Plant has manufactured original, heavy flat-printing machines for color printing, and aggregates for two-color offset printing.

Many rayon newspaper printing houses will receive highly productive small flat-printing machines in 1951. The productive capacity of each is 2,000 copies per hour.

PRODUCE FIRST MACHINES FOR MANUFACTURING PRINTERS' DYES -- Tashkent, Pravda Vostoka, 7 Jul 51

The Casting and Machinery Plant of the Bol'shaya Ivanovskaya Manufaktura has produced the first four high-duty machines for manufacturing printers' dyes at finishing factories. Such a mechanism replaces the hand labor of eight or ten men.

PRODUCE FIRST SOVIET NOTEBOOK AND RULING MACHINE -- Moscow, Izvestiya, 7 Jun 51

The Leningrad Linotip Plant has finished assembling the first Soviet notebook and ruling machine designed by K. A. Bolkov, chief designer.

The aggregate takes in paper from three rolls of printing paper and puts out complete notebooks, with covers and lined pads. At the same time, a separate section of the machine prints the necessary text on the covers. Productivity of the machine is 70,000 notebooks per shift. Only three men are required to attend it.

Series production of these aggregates is being organized at the plant.

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PUT SECOND NOTEBOOK-MAKING AGGREGATE INTO OPERATION -- Baku, Bakinskiy Rabochiy, 20 Jul 51

At the Rostov Krasnyy Perepletchik Factory, the second combination machine for making notebooks has been put into operation. This aggregate will enable the factory to increase its production of notebooks by more than 16 million per year.

The new aggregate puts out up to 120,000 notebooks in 24 hours. It lines and cuts the paper, counts out the sheets, binds the notebook, and inserts a blotting paper.

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